

ABSTRACT

An NMR teaching method and apparatus incorporating pieces representative of chemical fragments. Each piece has the number of sides corresponding to the number of bonds present around the central atom. Bonds to hydrogen are curved while bonding sides are flat. The presence of concavities and convex tabs on the bonding sides indicates bonding of the respective piece to a mating piece that causes splitting of the NMR peak. The shape of concavities on each piece is indicative of the chemical fragment of the respective piece while the shape of the convex tab of the respective piece is indicative of the chemical fragment of the mating piece. When presented with a spectrum, a student user can select the necessary pieces using data from the spectrum. Once selected, the student user can then assemble the pieces to determine the identity of the unknown molecule in the NMR spectrum.

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